

REMARKS

Claim 42 is amended. Claims 42-48 are pending in the application.

Claims 42-48 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown, U.S. Patent No. 5,418,180; in combination with Figura, U.S. Patent No. 5,661,064; and DeBoer, U.S. Patent No. 6,046,093. The Examiner is reminded by direction to MPEP § 2143 that a proper obviousness rejection has the following three requirements: 1) there must be some suggestion or motivation to modify or combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the combined references must teach or suggest all of the claim limitations. Claims 42-48 are allowable over Brown, Figura and DeBoer for at least the reason that the references, individually or as combined, fail to disclose or suggest each and every limitation in any of those claims.

Independent claim 42 recites forming a container construction having a first silicon-containing layer around a second silicon-containing layer where the first silicon-containing layer is more heavily doped than the second. Claim 42 further recites that the second silicon-containing layer defines an exposed inner periphery of the container and the first silicon-containing layer defines an exposed outer periphery of the container, and recites forming a dielectric material along the exposed inner and the exposed outer peripheries of the container construction. Brown discloses various capacitor constructions having hemispherical silicon surfaces (abstract, Figs. 6-8 and the accompanying text). At page 3 of the present Action the Examiner indicates that Brown discloses forming a dielectric material layer 81 along an exposed inner and exposed outer periphery of the container construction. Brown however specifically indicates a layer of titanium nitride material disposed between dielectric material layer 81 and silicon-containing layers (Figs. 7A, 7B

and 8, and the text at col. 5, lines 7-29). As indicated in applicant's previous response, Brown does not disclose or suggest the claim 42 recited forming a dielectric material along an exposed inner and an exposed outer periphery of a container construction where the exposed inner periphery is defined by a second silicon-containing layer and the exposed outer periphery is defined by a first silicon-containing layer.

The Examiner indicates at page 7 of the present Action that applicant's previous argument is not persuasive because claim 42 fails to recite the limitation where the exposed inner periphery of the container is defined by a second silicon-containing layer and the exposed outer periphery of the container is defined by a first silicon-containing layer. The Examiner is mistaken. Referring to claim 42 at lines 5-6, such clearly recites the second silicon-containing layer defining an exposed inner periphery and the first silicon-containing layer defining an exposed outer periphery of the container. However for added clarity, claim 42 is amended to recite the dielectric material being in direct physical contact with the first silicon-containing layer, and direct physical contact with the second silicon-containing layer. The amendment to claim 42 is solely for clarification purposes and is not intended to limit the scope of the claims. Accordingly, the Brown disclosure of forming dielectric material layer 81 over a titanium nitride layer does not disclose or suggest the forming of the dielectric material in direct physical contact with the second silicon-containing and in direct physical contact with the first silicon-containing layer defining the exposed outer periphery as recited in claim 42 and such claim is not rendered obvious by Brown.

As indicated at pages 3-4 of the present Action, Figura is relied upon as showing differentially doped layers and DeBoer is relied upon as showing methods of forming

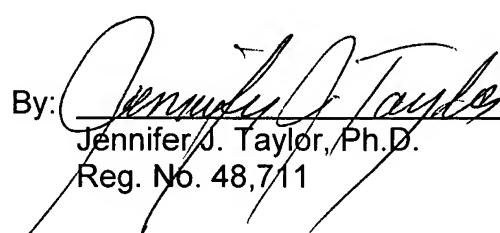
capacitors comprising HSG silicon. As combined with Brown, neither the HSG comprising capacitor disclosed by DeBoer nor the differentially doped layers disclosed by Figura contribute toward suggesting the claim 42 recited forming a dielectric material along and against a second silicon-containing layer which defines an exposed inner periphery and a first silicon-containing layer defining an exposed outer periphery of the container construction. Accordingly, independent claim 42 is not rendered obvious by the combination of Brown, Figura and DeBoer and is allowable over these references.

Dependent claims 43-48 are allowable over Brown, DeBoer and Figura for at least the reason that they depend from allowable base claim 42.

For the reasons discussed above, pending claims 42-48 are allowable. Accordingly, applicant respectfully requests formal allowance of such pending claims in the Examiner's next action.

Respectfully submitted,

Dated: Oct 4, 2004

By: 
Jennifer J. Taylor, Ph.D.
Reg. No. 48,711